

CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

COUNTRY USSR

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SUBJECT Factors Affecting the Status of
Technical Education in the USSR

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With respect to the education picture in the Soviet Union, in the early 30's, the technical university students were poorly trained for higher education; they were largely workers or children of workers with relatively little former background. They were, therefore, not able to maintain high standards in the process of education. The good students carried the lesson assignment load rather than teach the poor ones to carry their own burdens. The Moscow Mining Institute was staffed with technical specialists from other universities. The Institute itself was set up along German lines and there were about 30-32 professors on the faculty. Although larger physical plants for similar technical institutions existed in the Soviet Union, the Moscow Mining Institute was at that time (ca 1930) the best staffed. Lessons were abolished and education was conducted by large communal lectures given by professors, supplemented by smaller group instruction by the low-level instructors.

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the children of the former intelligentsia, although by far the best students, were actually driven out of the universities because of their class position. About 25% of all persons entering the technical universities were prepared for their higher education at that time. However, today it is probable that 90-95% of the students now in the universities are so prepared.

3. Practical chemistry was taught at the technical university; there was little emphasis or concern for theoretical studies. The work course included simple courses in mathematics, physics, chemistry, military science, and politics.

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the chemical laboratories in the mining institute although not in excellent condition, were adequate for the purposes of training given. However, this condition of adequacy prevailed only in the older, long-established institutions.

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With reference to the success of former students, I should [redacted] interesting comparison between the well and the poorly trained. The poorer students (largely, again, the former workers or children from worker's families), were not assigned to technical positions; they entered, instead, the policy or economy elements of the machine construction industries. These people today are the leaders of the industries. [redacted] there appeared to be an improvement in the quality and leadership after World War II.

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[redacted] technical research institute. The activities of this institute consisted largely of writing books, running tests for other groups, and doing some unidentified studies of materials of construction. [redacted] In this research institute there were activities in the fields of research for aircraft, welding, and gas turbine design. The materials testing laboratory was well equipped, but a great deal of the work was on a service level. The research institute had good scientific and technical specialists in its instrument design construction section.

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The government, recognizing the value of science, has continually tried to bring the level of science up in the USSR. The greatest attraction now offered is financial gain. The improvement of Soviet scientific conditions is still hampered, however, by the lack of qualified professors, although [redacted] there has been general improvement in Soviet science and technology over the years. There was no definite established technical policy in the machine-building industry; hence, the designers were permitted to perform their jobs much as they pleased. There was evident lack of interest in seeing through new ideas, it being easier to keep existing machinery and accept existing specifications where they existed.

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It was interesting to note that because welding was so widely employed in the USSR, welders themselves are periodically retrained.

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In regard to the supply of tungsten now coming in from China, [redacted] up through the year 1946, tungsten carbide tool material was still very scarce in the USSR. In regard to the low quality of Soviet manufactured machine tools, [redacted] the chief reasons were for their poor-wearing quality and their lack of precision. The reason for such a strong tendency in building up the welded aircraft frames and other military equipment, is that the Soviets realized that extrusions or rolled sections would be better than welded parts, but that a compromise would have to be made. [redacted] the fact that the Soviets manufactured a great deal of equipment with poor surface finish was due to lack of equipment and machine tools.

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[redacted] nonferrous metals could be cast continuously but [redacted] the problem of ferrous metals was one of great difficulty and it would take perhaps ten years to solve.

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